

Status as of: 2020-04-20

## DESCRIPTION OF NATIONAL GENETIC EVALUATION SYSTEMS

<b>Country (or countries)</b>	BELGIUM (Walloon Region)
<b>Main trait group<sup>1</sup></b> NOTE! Only one trait group per form!	Birth Traits
<b>Breed(s)</b>	Belgian Blue
<b>Trait definition(s) and unit(s) of measurement<sup>2</sup></b> Attach an appendix if needed	- Gestation length (days) - Birth weight (kg) - Body conformation score (1 - 9)
<b>Method of measuring and collecting data</b>	By technicians or breeders
<b>Time period for data inclusion</b>	All available data since 1993
<b>Age groups (e.g. parities) included</b>	All
<b>Other criteria (data edits) for inclusion of records</b>	25 < birth weight < 70 264 < gestation length < 301 0 < age at recording < 120
<b>Criteria for extension of records (if applicable)</b>	N/A
<b>Sire categories</b>	All
<b>Environmental effects<sup>3</sup>, pre-adjustments</b>	No pre-adjustments
<b>Method (model) of genetic evaluation<sup>3</sup></b>	Multiple trait animal model
<b>Environmental effects<sup>3</sup> in the genetic evaluation model</b>	Herd (F) Parity (F) Year and Month of birth (F) Sex (F) Suckling or not
<b>Adjustment for heterogeneous variance in evaluation model</b>	No Adjustment
<b>Use of genetic groups and relationships</b>	No
<b>Blending of foreign/Interbull information in evaluation</b>	No blending
<b>Genetic parameters in the evaluation</b>	See Appendix GE
<b>System validation</b>	Genetic trends, correlations between consecutive evaluations
<b>Expression of genetic evaluations</b> If standardised (e.g. RBV), give standardisation formula in the appendix	standardized breeding values, which are multiplied by a standard error of 10 and added to a mean value of 100
<b>Definition of genetic reference base</b>	All cows born 7 years before the current year
<b>Next base change</b>	Base changes every year
<b>Calculation of reliability</b>	Reliabilities are calculated from PEV
<b>Criteria for official publication of evaluations</b>	Sires : REL $\geq$ 50 % ; At least 10 calves in minimum 5 herds Females : REL $\geq$ 15 %
<b>Number of evaluations / publications per year</b>	3
<b>Use in total merit index<sup>4</sup></b>	No
<b>Anticipated changes in the near future</b>	/
<b>Key reference on methodology applied</b>	

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**Key organisation: name, address, phone, fax, e-mail, web site**

Organisation responsible for genetic evaluations and computing centre:

Elevéo asbl

R&D Department - Genetic Evaluation Unit

Rue des Champs Elysées 4

B-5590 Ciney

0032/83/23.06.32.

eval\_gen@awenet.be

WEB site for publication of sire breeding values:

<http://www.awenet.be>

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1) Either: Production (e.g. milk, fat, protein), Conformation, Health (e.g. mastitis resistance, milk somatic cell, resistance to diseases other than mastitis), Longevity, Calving (e.g. stillbirth, calving ease), Female fertility (e.g. non-return rate, interval between reproductive events, number of AI's, heat strength), Workability (e.g. milking speed, temperament), Beef production, Efficiency (e.g. body weight, energy balance, body conditioning score), or Other traits.

2) Indicate frequencies per category if the trait is categorical and specify transformation of data if practiced.

3) Use abbreviations for most common effects (see document with list of abbreviations at [http://www-interbull.slu.se/service\\_documentation/General/list\\_of\\_abbreviations.rtf](http://www-interbull.slu.se/service_documentation/General/list_of_abbreviations.rtf)) and indicate random (R) or fixed (F).

4) Please give economic weights and indicate how they are expressed (preferably in genetic standard deviation units).

### Parameters used in genetic evaluation

**Country (or countries):** BELGIUM (Walloon Region)  
**Main trait group:** Birth Traits  
**Breed (repeat as necessary):** Belgian-Blue

Trait	Definition	ITB <sup>a</sup>	h <sup>2b</sup>	genetic variance <sup>b</sup>	official proof standardisation formula <sup>c</sup>
Gestation length			0.16	2,1	
Birth weight			0.09	5,3	
Conformation score			0.03	0,06	

<sup>a</sup> Indicate, with X, traits that are submitted to Interbull for international genetic evaluations.

<sup>b</sup> If repeated records are treated as separate traits, provide heritability estimates and genetic variances separately for each trait, as well as for all traits pooled, i.e. for the trait submitted to Interbull.

<sup>c</sup> Expressed as follows:

StandEval=((eval-a)/b)\*c+d where a=mean of the base adjustment, b=standard deviation of the base, c=standard deviation of expression (include sign if scale is reversed), and d=base of expression.